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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/764,299	01/19/2001	Hitoshi Ishida	2565-221P	6355

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EXAMINER	
BURGESS, BARBARA N	

ART UNIT	PAPER NUMBER
2157	12

DATE MAILED: 04/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/764,299	ISHIDA ET AL.	
	Examiner	Art Unit	
	Barbara N Burgess	2157	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This Office Action is in response to Request for Continuation Examination (RCE) filed January 27, 2004. Claims 1-26 are presented for further examination.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-4, 6-18, and 20-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Ilg et al. (hereinafter "Ilg", 4,829,297) in view of Gilbert et al. (hereinafter "Gilbert", 5,297,144).

As per claims 1 and 16, Ilg discloses a system for sending and receiving serial data comprising:

- A plurality of secondary stations each configured for receiving a refresh request in a determined time and for sending one of data and response to a primary station (column 1, lines 20-23, column 2, lines 20-23, 47-50, column 5, lines 34-35, 41-44, 55-57, 66-68, column 6, lines 1-3, 9-15, column 7, lines 5-9, 12-15, 50-67, column 8,

lines 45-47, column 10, lines 22-27, 30-33, 60-61, column 11, lines 15-17, 53-54, 62-64, Figure 1);

- The primary station for sending the refresh request and a polling request asking for sending data, and for retrying one of the polling request and the refresh request within the same determined time in case of failure of receiving one of the data and the response (column 1, lines 17-19, 36-38, column 2, lines 20-22, 47-50, column 5, lines 34-35, 41-44, 55-57, 66-68, column 6, lines 1-3, 9-15, column 7, lines 5-9, 12-15, 50-67, column 8, lines 45-47, column 10, lines 22-27, 30-33, 60-61, column 11, lines 15-17, 53-54, 62-64, Figure 1);
- Retrying for sending one of the refresh request and the polling request to the secondary station which has not provided a normal response within a same determined time (column 4, lines 1-5, column 7, lines 53-55, 60-62, 68, column 8, lines 1-5, 20-23, column 9, lines 24-28).

Ilg does not explicitly disclose:

- A plurality of secondary stations each configured for receiving a synchronization request;
- The primary station further configured for sending the synchronization request simultaneously to the plurality of the secondary stations;

However, the use and advantages for implementing these steps is well known to one skilled in the relevant art at the time the invention was made as evidenced by teachings

of Gilbert (column 3, lines 26-45, 55-68, column 7, lines 63-68, column 9, lines 35-41, column 10, lines 51-60).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement the primary station sending a synchronization request simultaneously to the secondary stations and in Ilg's method in order to define the start of a reservation request period allocating fixed time slots during which any remote station having a data message to transmit may request access and reserve a portion of the channel for their data messages.

As per claims 2 and 17, Ilg discloses:

- The primary station includes a retry number counter for counting one of a polling request retried and a refresh request retried, wherein retrying of one of the polling request and the refresh request is stopped after one of a determined number and determined time has passed (column 5, lines 31-40, column 7, lines 5-8, 50-52, 55-63).

As per claim 3, Ilg discloses:

- The primary station includes a record corresponding to each of the secondary stations, wherein a retry flag is set, when a normal response is not received, wherein the retry flag remains in the record corresponding to each of the secondary stations after stopping retrying of one of the polling request and the refresh request (column

4, lines 1-5, column 7, lines 53-55, 60-62, 68, column 8, lines 1-5, 20-23, column 9, lines 24-28).

As per claims 4 and 18, IIg discloses:

- The secondary station responds in a response frame of a compact type by using a flag code which is different from a flag code of the primary station (column 8, lines 7-9).

As per claims 6 and 20, IIg discloses:

- The primary station stores information on a type for each of the secondary stations, wherein the primary station skips sending the polling request in the determined time for the secondary station having failure to respond within the determined time (column 4, lines 1-5, column 7, lines 53-55, 60-62, 68, column 8, lines 1-5, 20-23, column 9, lines 24-28).

As per claim 7, IIg discloses:

- The primary station stores information on a type for each of the secondary stations, wherein the primary station ignores data from the secondary station having failure to respond within the determined time (column 4, lines 1-5, column 7, lines 53-55, 60-62, 68, column 8, lines 1-5, 20-23, column 9, lines 24-28)

As per claim 8, IIg discloses:

- The primary station stores an error state of each of the secondary stations, wherein the primary station sends an initialization request to the secondary station, when the secondary station in the error state returns to a normal response state (column 9, lines 14-38).

As per claim 9, IIg discloses:

- The primary station stores information of a type for each of the secondary stations, wherein the primary station collects information of the secondary station before sending and compares the collected information with the information of the type before sending the initialization request (column 9, lines 14-38).

As per claim 10, IIg discloses:

- One of the primary station and the secondary station sends a high level signal for a short period after sending a frame (column 5, lines 19-28, 41-49).

As per claim 11, IIg discloses a system for sending and receiving serial data comprising:

- A primary station configured for sending a refresh request and a polling request in a specific order without having each secondary station address in determined time (column 1, lines 36-44);
- A plurality of secondary stations for responding to the primary station, following to the specific order (column 1, lines 36-47).

As per claim 12, IIg discloses:

- The secondary station has one of a counter and a time monitoring a response from another secondary station and time, and makes a response of its own station after one of a respectively set order and time (column 1, lines 36-47).

As per claim 13, IIg discloses:

- The secondary station has a monitoring responder for responding to the primary station in a determined order after the response time is passed in monitoring (column 5, lines 31-40).

As per claims 14 and 15, IIg discloses:

- The primary station provides a field for showing that a normal response to the refresh request for the secondary station can be skipped, wherein the secondary station stops a normal refresh response based on the field (column 5, lines 31-40);
- The primary station provides a field for showing that an error report from the secondary station is possible in the refresh response, wherein the secondary station has a monitor for monitoring an error in an own station, wherein the secondary station returns an error response based on the field (column 5, lines 31-40).

As per claims 21, 24, IIg discloses a system for sending and receiving serial data, comprising:

- A plurality of secondary stations configured to send data in response to one of a refresh request and a polling request (column 1, lines 20-23, column 2, lines 20-23, Figure 1);
- A master station operbly connected to said secondary stations, said master station configured to perform the first and second sequence determinations in a predetermined fixed period of time (column 1, lines 17-19, 36-38, column 2, lines 20-22, Figure 1);
- Master station determining a first sequence of responses by sequentially sending one of a refresh request and a polling request to each secondary station and recording a response from each secondary station (column 1, lines 36-47, column 9, lines 14-38);
- Master station determining a second sequence of responses by sequentially sending one of the refresh request and the polling request to each secondary station associated with an abnormal response in the first sequence of responses ((column 4, lines 1-5, column 7, lines 53-55, 60-62, 68, column 8, lines 1-5, 20-23, column 9, lines 24-28).

As per claims 22 and 25, IIg does not explicitly disclose:

- Each of the plurality of secondary stations is configured to prepare the data in response to a synchronization request;
- Master station is configured to simultaneously send the synchronization request to the plurality of the secondary stations.

However, the use and advantages for implementing these steps is well known to one skilled in the relevant art at the time the invention was made as evidenced by teachings of Gilbert (column 3, lines 26-45, 55-68, column 7, lines 63-68, column 9, lines 35-41, column 10, lines 51-60).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement the primary station sending a synchronization request simultaneously to the secondary stations and in Ilg's method in order to define the start of a reservation request period allocating fixed time slots during which any remote station having a data message to transmit may request access and reserve a portion of the channel for their data messages.

As per claims 23 and 26, Ilg further discloses wherein the abnormal response includes a busy response and a time (column 8, lines 7-9).

3. Claims 5 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ilg et al. (hereinafter "Ilg", 4,829,297) in view of Gilbert et al. (hereinafter "Gilbert", 5,297,144) and in further view of Davis et al. (hereinafter "Davis", 4, 363, 093).

As per claims 5 and 19, Ilg, in view of Gilbert, does not explicitly disclose:

- The secondary station returns a busy response, when data for responding for the polling request from the primary station are failed to be prepared, wherein the

primary station retries a polling request for the secondary station which has sent the busy response.

However, the use and advantages for the secondary station returning a busy response is well known to one skilled in the relevant art at the time the invention was made as evidenced by the teachings of Davis (column 38, lines 32-41).

Therefore, one of ordinary skill in the art at the time the invention was made would have found it obvious to implement or incorporate returning a busy signal in Ilg's system in order to for the host processor to know that the status of the station is busy and a response cannot be provided.

Response to Arguments

The Office notes the following arguments:

(a) None of the cited portions of Ilg teaches or suggests, either explicitly or implicitly, the refresh request feature.

(b) Ilg does not teach or suggest "a plurality of secondary stations each configured for receiving a refresh request in a determined time".

(c) The combination of Ilg and Gilbert is improper because modifying Ilg as suggested with Gilbert renders Ilg unsatisfactory for its intended purpose.

4. Applicant's arguments filed have been fully considered but they are not persuasive.

In response to:

(a) IIg discloses a counter that keeps track of the maximum number of times a station is polled before the master station polls the next station. IIg further discloses the master station sending polling requests several time to ensure a valid response (column 1, lines 20-23, column 2, lines 20-23, 47-50, column 5, lines 34-35, 41-44, 55-57, 66-68, column 6, lines 1-3, 9-15, column 7, lines 5-9, 12-15, 50-67, column 8, lines 45-47, column 10, lines 22-27, 30-33, 60-61, column 11, lines 15-17, 53-54, 62-64, Figure 1). Therefore, IIg discloses a primary station configured for sending a refresh request.

(b) IIg discloses polling stations several times by the master station to ensure a valid response. As well, the polling is done in periodic intervals (column 1, lines 20-23, column 2, lines 20-23, 47-50, column 5, lines 34-35, 41-44, 55-57, 66-68, column 6, lines 1-3, 9-15, column 7, lines 5-9, 12-15, 50-67, column 8, lines 45-47, column 10, lines 22-27, 30-33, 60-61, column 11, lines 15-17, 53-54, 62-64, Figure 1). Therefore, IIg discloses "a plurality of secondary stations each configured for receiving a refresh request in a determined time".

(c) In response to applicant's argument that the combination of IIg and Gilbert is improper because modifying IIg as suggested with Gilbert renders IIg unsatisfactory for its intended purpose, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references

would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barbara N Burgess whose telephone number is (703) 305-3366. The examiner can normally be reached on M-F (8:00am-4:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703) 308-7562. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Barbara N Burgess
Examiner
Art Unit 2157

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April 3, 2004

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